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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,942	06/08/2001	Rodney Thomas Fox	08291-673001	8418

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EXAMINER

JIANG, SHAOJIA A

ART UNIT	PAPER NUMBER
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1617

DATE MAILED: 04/23/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/720,942

Applicant(s)

FOX ET AL.

Examiner

Shaojia A. Jiang

Art Unit

1617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2002 and 13 January 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 18, 2002 has been entered in Paper No. 13.

Applicant's letter of the request for reconsideration for improper CPA, filed January 13, 2003 is acknowledged.

This Office Action is a response to Applicant's request for continued examination (RCE) filed October 18, 2002 in Paper No. 13.

It is noted that no amendment and/or response to the Final Office Action (mailed April 22, 2002) for RCE have been filed by Applicant. Thus, Applicant's amendment and response to the First Office Action on the merits (dated September 6, 2001), filed on January 30, 2002 in Paper No. 9 wherein claims 1-15 have been amended since claim 1 is amended, are examined on the merits herein. Currently, claims 1-15 are pending in this application.

Claims 1-15 are examined on the merits herein.

***Claim Rejections - 35 USC § 103***

Art Unit: 1617

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fox et al. (WO 97/28883, of record) in view of McCue et al. (5,403,587, of record).

Fox et al. discloses that the same (aerosol) spray device having same spraying functions as the instant claimed device is useful in a method of precipitating airborne particles. Fox et al. further discloses that the liquid composition which is sprayed from the aerosol spray device is a mixture of water and hydrocarbon, or an emulsion and an anti-bacterial agent. See abstract, page 2 lines 1-20, and claims 1-7.

Fox et al. does not expressly disclose the employment of this aerosol spray device comprising a disinfecting or sanitizing compositions in a method of disinfecting or sanitizing a space occupied by airborne microorganisms and/or viruses. The prior art does also not expressly disclose the disinfecting or sanitizing composition comprising an essential oil as an anti-bacterial or anti-viral agent such as thyme, lemongrass, roses, citronella, eucalyptus, and sandalwood, and quaternary ammonium. Fox et al. does not further expressly disclose the effective amounts of each ingredients in the composition.

McCue et al. discloses the disinfectant and sanitizing compositions having anti-microbial activity comprising essential oils such as thyme, lemongrass, roses, citronella,

Art Unit: 1617

eucalyptus, and sandalwood, and organic solvent and a surfactant in amounts within the instant claim.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the aerosol spray device herein comprising a disinfecting or sanitizing compositions in a method of disinfecting or sanitizing a space occupied by airborne microorganisms and/or viruses, and to employ an essential oil as an anti-bacterial or anti-viral agent such as thyme, lemongrass, roses, citronella, eucalyptus, and sandalwood, and quaternary ammonium in the disinfecting or sanitizing composition, and to optimize the effective amounts of each ingredients in the composition.

One having ordinary skill in the art at the time the invention was made would have been motivated to employ the aerosol spray device herein comprising a disinfecting or sanitizing compositions in a method of disinfecting or sanitizing a space occupied by airborne microorganisms and/or viruses because the same aerosol spray device having same spraying functions as the instant claimed device is known to be useful in a method of precipitating airborne particles. One of ordinary skill in the art would recognize that these airborne particles include airborne microorganism and/or viruses. Moreover, the liquid composition of Fox et al. which is sprayed from the aerosol spray device is known to comprise a mixture of water and hydrocarbon, or an emulsion and an anti-bacterial agent within the instant claim. Thus, Fox et al. therein teaches broadly the usefulness of this aerosol spray device. Therefore, one of ordinary skill in the art would have reasonably expected that this aerosol spray device containing the

Art Unit: 1617

liquid composition of Fox et al. would be useful in a method of disinfecting or sanitizing a space occupied by airborne microorganisms and/or viruses. Additionally, one of ordinary skill in the art would have been motivated to employ quaternary ammonium and the essential oil herein in the disinfecting or sanitizing composition since quaternary ammonium is well known a disinfectant and sanitizer since it is known that quaternary ammonium has antimicrobial activity. It is also known that the essential oil such as thyme, lemongrass, roses, citronella, eucalyptus, and sandalwood is useful in the disinfecting or sanitizing composition as an anti-bacterial or anti-viral agent according to McCue et al. Further, one of ordinary skill in the art would have been motivated to optimize the effective amounts of active ingredients in the composition herein because such effective amounts of active ingredients in the composition herein have been taught by McCue et al.

Thus the claimed invention as a whole is clearly prima facie obvious over the combined teachings of the prior art.

Applicant's remarks filed on January 30, 2002 in Paper No. 9 with respect to this rejection of claims 1-15 made under 35 U.S.C. 103(a) have been fully considered but are not deemed persuasive as to the nonobviousness of the claimed invention over the prior art as discussed below.

Applicant argues that Fox et al. does not expressly disclose the employment of an aerosol spray device comprising a disinfecting or sanitizing compositions in a method for disinfecting or sanitizing a space contaminated by airborne microorganisms

Art Unit: 1617

and/or viruses. However, as discussed in the previous Office Action (September 6, 2001), Fox et al. discloses that the same aerosol spray device having same spraying functions as the instant claimed device is useful in a method of precipitating airborne particles broadly. For example, the spray device of Fox therein is known to produce the same unipolar charge which provides the droplets with a charge to the same mass ratio of at least  $\pm 1 \times 10^{-4}$  C/Kg (see the abstract). Moreover, one of ordinary skill in the art would recognize that these airborne particles include airborne microorganism and/or viruses. Thus, Fox et al. therein teaches broadly the usefulness of this aerosol spray device. Therefore, one of ordinary skill in the art would have reasonably expected that this aerosol spray device containing the liquid composition of Fox et al. would be useful in a method of disinfecting or sanitizing a space occupied by airborne microorganisms and/or viruses.

Applicant also asserts that the disinfectant and sanitizing compositions of McCue et al. having anti-microbial activity comprising essential oils such as thyme, lemongrass, roses, citronella, eucalyptus, and sandalwood, and organic solvent and a surfactant in amounts within the instant claim are used for hard surface. However, McCue et al. has been cited by the examiner primarily for its teaching that the disinfectant and sanitizing compositions of McCue et al. comprising active ingredients within the instant claims are known to have anti-microbial activity. Applicant is further requested to note that it is well settled that "intended use" of a composition or product, e.g., for use on hard surface, is not considered to be a limitation to a composition or product. See, e.g., In re Hack 114,

Art Unit: 1617

USPQ 161. Moreover, active ingredients in the composition herein are well known in the art processing antimicrobial activity.

Applicant further argues that the instant claimed invention enables airborne microorganism or viruses to be eliminated in a more efficient manner, and that by imparting to the particles an unipolar charge having a charge to mass ratio greater than is imparted to particle sprayed from a standard device, much less disinfectant or sanitizing agent is required. Nevertheless, the record contains no clear and convincing evidence of nonobviousness and/or unexpected results for the claimed method herein over the prior art to support Applicant's arguments. Applicant's data shown in the Examples 1-2 of the specification at pages 15-19 herein have been fully considered with respect to the nonobviousness and/or unexpected results of the claimed invention over the prior art, but are not deemed persuasive since Examples 1-2 in the specification provide no side-by-side comparison with the closest prior art. Therefore, the evidence presented in Examples herein is not seen to support the nonobviousness of the instant claimed invention over the prior art.

For the above stated reasons, said claims are properly rejected under 35 U.S.C. 103(a). Therefore, said rejection is adhered to.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA



Art Unit: 1617

1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 6,199,766 in view of McCue et al. (5,403,587, of record).

Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent are drawn to the same aerosol spray device as the instant claimed device employed in the method of killing flying insect. The claim of the instant application is drawn to the aerosol spray device employed in the method of disinfecting or sanitizing a space occupied by airborne microorganisms and/or viruses. The patent dose not discloses the instant claimed composition. McCue et al. teaches similar disinfectant and sanitizing compositions having anti-microbial activity comprising essential oils such as thyme, lemongrass, roses, citronella, eucalyptus, and sandalwood, and organic solvent and a surfactant in amounts within the instant claim. One having ordinary skill in the art at the time the invention was made would have been motivated to employ the same aerosol spray device known to be useful in a method of killing flying insect with McCue's compositions in the instant claimed method since all components employed herein are known. Therefore, one of ordinary skill in the art would have found it obvious to employ this aerosol spray device with McCue's

Art Unit: 1617

compositions in a method of disinfecting or sanitizing a space occupied by airborne microorganisms and/or viruses.

Thus, the instant claims 1-15 are seen to be obvious over the claims 1-6 of U.S. Patent No. 6,199,766 in view of McCue et al. (5,403,587).

Applicant's remarks filed on January 30, 2002 in Paper No. 9 with respect to this rejection of claims 1-15 have been fully considered but are not deemed persuasive as to the nonobviousness of the claimed invention over the prior art. Applicant asserts that there is no actual overlap between the patent (6,199,766) and the instant claims. As discussed in the previous Office Action (September 6, 2001), the patent discloses the same aerosol spray device as the instant claimed device employed in the method of killing flying insect comprising an insecticidal composition. The claim of the instant application is drawn to the aerosol spray device employed in the method of disinfecting or sanitizing a space occupied by airborne microorganisms and/or viruses. Thus, the overlap is clearly seen. Applicant's remarks Regarding McCue's teaching are believed to be adequately addressed by the obvious rejection presented above.

Therefore, the obviousness-type double patenting rejection herein is deemed proper.


Art Unit: 1617

In view of the rejections to the pending claims set forth above, no claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Jiang, whose telephone number is (703) 305-1008. The examiner can normally be reached on Monday-Friday from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan, Ph.D., can be reached on (703) 305-1877. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-1235.



S. Anna Jiang, Ph.D.  
Patent Examiner, AU 1617  
April 15, 2003